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CLAIMS:

What is claimed is:

1.   A method of controlling access to computer system
5   resources based on permissions, comprising:
        receiving a request for access to a computer system
resource and
        executing, on the request, a security policy
identified by a security policy file class,
10   wherein the security policy determines if a
superclass permission is implied by a required permission
in each protection domain of an access control context
and adds the required permission to a permission
collection if the superclass permission is implied by the
15   required permission in each protection domain of the
access control context, and wherein the security policy
grants access to the computer system resource if the
superclass permission of the required permission is
present in each protection domain of the access control
20   context.

2.   The method of claim 1, wherein the request is
received from bytecode.

25   3.   The method of claim 1, further comprising:
        determining the required permission based on a
CodeSource associated with the request.

4.   The method of claim 1, wherein the security policy
30   determines if a superclass permission is implied by a
required permission in each protection domain by
determining if at least one permission collection in each
protection domain includes the superclass permission.

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5.   The method of claim 1, wherein the security policy
adds the required permission to a permission collection
by creating a new permission collection and adding the
5   required permission to the new permission collection.

6.   The method of claim 5, wherein the security policy
adds the required permission to a permission collection
by adding any subclass permissions of the required
10   permission to the new permission collection.

7.   The method of claim 1, further comprising retrieving
the access control context for a thread of execution that
sent the request for access to the computer system
15   resource.

8.   The method of claim 1, wherein the security policy
adds the required permission to a permission collection
by adding the permission to a permission collection
20   associated with the superclass permission.

9.   A computer program product in a computer readable
medium for controlling access to computer system
resources based on permissions, comprising:
25   first instructions for receiving a request for
access to a computer system resource; and
          second instructions for executing, on the request, a
security policy identified by a security policy file
class,
30   wherein the security policy includes instructions
for determining if a superclass permission is implied by
a required permission in each protection domain of an
access control context and instructions for adding the

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required permission to a permission collection if the
superclass permission is implied by the required
permission in each protection domain of the access
control context, and wherein the security policy further
5   includes instructions for granting access to the computer
system resource if the superclass permission of the
required permission is present in each protection domain
of the access control context.

10   10.   The computer program product of claim 9, wherein the
request is received from bytecode.

11.   The computer program product of claim 9, further
comprising:
15   third instructions for determining the required
permission based on a CodeSource associated with the
request.

12.   The computer program product of claim 9, wherein the
20   instructions in the security policy for determining if a
superclass permission is implied by a required permission
in each protection domain include instructions for
determining if at least one permission collection in each
protection domain includes the superclass permission.
25

13.   The computer program product of claim 9, wherein the
instructions in the security policy for adding the
required permission to a permission collection include
instructions for creating a new permission collection and
30   instructions for adding the required permission to the
new permission collection.

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14. The computer program product of claim 13, wherein
the instructions in the security policy for adding the
required permission to a permission collection include
instructions for adding any subclass permissions of the
5   required permission to the new permission collection.

15. The computer program product of claim 9, further
comprising third instructions for retrieving the access
control context for a thread of execution that sent the
10 request for access to the computer system resource.

16. The computer program product of claim 9, wherein the
instructions in the security policy for adding the
required permission to a permission collection include
15 instructions for adding the permission to a permission
collection associated with the superclass permission.

17. An apparatus for controlling access to computer
system resources based on permissions, comprising:
20   means for receiving a request for access to a
computer system resource; and
        means for executing, on the request, a security
policy identified by a security policy file class,
        wherein the security policy determines if a
25 superclass permission is implied by a required permission
in each protection domain of an access control context
and adds the required permission to a permission
collection if the superclass permission is implied by the
required permission in each protection domain of the
30 access control context, and wherein the security policy
grants access to the computer system resource if the
superclass permission of the required permission is

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present in each protection domain of the access control
context.

18.   The apparatus of claim 17, wherein the request is
received from bytecode.

19.   The apparatus of claim 17, further comprising:
      means for determining the required permission based
on a CodeSource associated with the request.

20.   The apparatus of claim 17, wherein the security
policy determines if a superclass permission is implied
by a required permission in each protection domain by
determining if at least one permission collection in each
protection domain includes the superclass permission.

21.   The apparatus of claim 17, wherein the security
policy adds the required permission to a permission
collection by creating a new permission collection and
adding the required permission to the new permission
collection.

22.   The apparatus of claim 21, wherein the security
policy adds the required permission to a permission
collection by adding any subclass permissions of the
required permission to the new permission collection.

23.   The apparatus of claim 17, further comprising means
for retrieving the access control context for a thread of
execution that sent the request for access to the
computer system resource.

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24.   The apparatus of claim 17, wherein the security
policy adds the required permission to a permission
collection by adding the permission to a permission
5   collection associated with the superclass permission.